REMARKS/ARGUMENTS

Claims 2, 5 to 9, 11, 13 and 15 to 22 are pending in the application, original claims 1, 3, 4, 10, 12 and 14 having previously been cancelled without prejudice.

In the Office Action mailed December 14, 2006, claims 2, 5 to 9, 11, 13, 15 to 18, 21 and 22 were rejected and claims 19 and 20 objected to.

It is noted that, in paragraph 2 of the Office Action, the examiner stated that the previous rejection of claims under 35 U.S.C. § 103(a) had been overcome by the previous response.

In paragraph 3 of the Office Action, the examiner objected to the formatting of claims 8, 11, 16 and 22, specifically the absence of line indentation between elements or steps. The objection has been addressed by reformatting these claims. Also, the colon has been inserted, as required, in line 2 of claim 11.

In paragraph 4, the examiner objected to the line spacing in claims 2, 5 to 9, 11, 13 and 15 to 22. Accordingly, double spacing has been used in the foregoing listing of claims.

In paragraph 6, the examiner rejected claims 7 to 9 and 16 under 35 U.S.C. § 112 on the grounds that certain terms lacked a proper antecedent. In response, a number of amendments have been made, not only to those claims but, for consistency, to other claims and the corresponding sections of the description. Thus:

The terms "maximal value" and "absolute value" have been replaced by the term "absolute maximal value".

The term "predetermined maximum level" has been equated to the "predetermined threshold value" which is used elsewhere (see paragraph [0014]). It is noted that the "predetermined maximal value" in paragraph [0018] is an exception.

For greater clarity, this "threshold value" has been designated by the letter "T", rather than by a hexadecimal number.

In paragraph [0027], it has been clarified that γ_1 and γ_2 are preset thresholds (not to be confused with the predetermined threshold value (T)).

In paragraphs [0018] and [0020], and corresponding claims, the various hexadecimal numbers were not consistent with the 16-bit example. For better consistency with claim 8 and paragraph [0017], as originally filed, and to take account of the fact that the dynamic range of the DMT signal $x(n_i)$ is only 16-bits (in the specific embodiment), the number 0x00000 has been replaced by 0x3FFFF. (See also original paragraph [0016]. The hexadecimal number in claim 8 has been corrected, also in view of the 16-bit dynamic range. It is noted that, although the invention is not limited to 16 bit DMT signals, 0xXXXX is preferred because there are 16 bits in the preferred embodiment.

The term "frequency modulated DMT input signal" has been changed to "frequency domain DMT input signal" and distinguished from the "time domain DMT signal $x(n_i)$" or simply "DMT

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signal" which is obtained by passing the frequency domain DMT input signal through IFFT unit 100.

Paragraphs [0024] and [0025] have been amended to clarify that, during the signature waveform generation process, the initial time domain signature waveform s(n) is compared with a waveform restriction profile which comprises a threshold (e.g. a constant 0.5) and, following the FFT transformation, checked against a frequency mask which also has thresholds.

A number of other minor amendments have been made for greater clarity and consistency, but are considered to be self-explanatory. If the examiner has questions about them, however, he is invited to call the undersigned at 616 254 9111.

In paragraph 7, the examiner rejected claims 2, 5, 6, 7, 11, 13, 15, 17, 18, 21 and 22 under 35 U.S.C. § 112 in view of the erroneous reference to "between samples" in claims 11, 17, 21 and 22. The error has been corrected by substituting "between successive iterations", as given in paragraph [0024].

It is noted that, in paragraphs 8 and 9 of the Office Action, the examiner indicated that claims 19 and 20 would be allowable if rewritten to overcome his objections and that the other extant claims would be allowable if rewritten to overcome his rejections under 35 U.S.C. § 112. The claims having been rewritten as required, it is submitted that all claims of record are patentable over the prior art of record. Accordingly, it is respectfully requested that the application be given early and favourable reconsideration.

Respectfully submitted,

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